Europäisches Patentamt

European Patent Office

Office européen des brevets



EP 0 609 617 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 11.12.1996 Bulletin 1996/50

(43) Date of publication A2: 10.08.1994 Bulletin 1994/32

(21) Application number: 93309619.0

(22) Date of filing: 01.12.1993

(51) Int. Cl.⁶: **G06F 1/18**, G11B 33/12, G06K 7/06

(11)

(84) Designated Contracting States: BE DE FR GB NL

(30) Priority: 01.12.1992 JP 321063/92 21.01.1993 JP 8596/93 27.07.1993 JP 205682/93

(71) Applicant: MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.
Kadoma-shi, Osaka-fu, 571 (JP)

(72) Inventors:

 Oshima, Mitsuaki Kyoto (JP)

Tan, Satoshi
 Katano-shi, Osaka (JP)

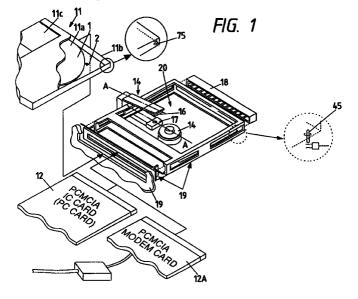
 Kuwamoto, Makoto
 Hirakata-shi, Osaka (JP)

(74) Representative: Senior, Alan Murray
J.A. KEMP & CO.,
14 South Square,
Gray's Inn
London WC1R 5LX (GB)

(54) Recording and reproducing apparatus

(57) Herein disclosed is an information recording/reproducing apparatus being adaptable to both a disk-shaped recording medium and a card-shaped recording medium. The information recording/reproducing apparatus comprises a loading mechanism adapted to position the disk-shaped recording medium 11a having an optical recording surface on one side and a magnetic recording surface on the other side, a recording/reproducing disk 11 with a cartridge 11b, and

an IC card 12, a space 20 formed in the recording/reproducing apparatus in which a retractable magnetic head 16, a light pickup 17, a clamper 14, a socket connected with the IC card are disposed in the vicinity of the loading mechanism. The recording/reproducing disk 11 and the IC card can be loaded in the commonly usable space 20.





EUROPEAN SEARCH REPORT

Application Number EP 93 30 9619

Category	Citation of document with in of relevant pas		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
х	PATENT ABSTRACTS OF JAPAN vol. 015, no. 162 (P-1194), 23 April 1991 & JP-A-03 030007 (TOSHIBA CORP), 8 February 1991, * abstract *		1-3,9,	G06F1/18 G11B33/12 G06K7/06
X	1992 & JP-A-04 155415 (N	JAPAN P-1422), 17 September IPPON STEEL CORP), 28	1-3,11	
A	May 1992, * abstract *		4-10, 12-17	
A	US-A-5 159 182 (EIS October 1992 * figures 1,2 * * column 1, line 56 * claims 1,13 *	ELE RAYMUND H) 27 - column 3, line 21 *	11	
A	PATENT ABSTRACTS OF vol. 006, no. 051 (& JP-A-56 163536 (R December 1981, * abstract *	P-108), 6 April 1982	1,15	TECHNICAL FIELDS SEARCHED (Int.CL.5)
A	EP-A-0 481 771 (NIP April 1992	PON STEEL CORP) 22		
E	PATENT ABSTRACTS OF vol. 018, no. 333 (& JP-A-06 076540 (C) March 1994, * abstract *	JAPAN P-1759), 23 June 1994 ANON ELECTRON INC), 18	1-4,9	
		-/		
	The present search report has b	een drawn up for all claims		
Place of search Date of completion of the search				Examiner
THE HAGUE 8 October		8 October 1996	Scl	niwy-Rausch, G
CATEGORY OF CITED DOCUMENTS T: theory or prince E: earlier patent document of the same category T: theory or prince E: earlier patent document cited document of the same category T: theory or prince E: earlier patent document of the same category T: theory or prince E: earlier patent document dear theory and the same category T: theory or prince E: earlier patent document dear theory are patent document docum			ocument, but publiste late in the application for other reasons	lished on, or n



EUROPEAN SEARCH REPORT

Application Number EP 93 30 9619

Category	Citation of document with indicati		Relevant	CLASSIFICATION OF TH	
X,P A,P	GB-A-2 260 634 (DU PON * figures 1-4 * * column 2, line 14 - column 6, line 26 - column 12, line 4 - colum	(7) 21 April 1993 column 5, line 9 *	to claim 1-3,10 11	APPLICATION (Int.Cl.5)	
X,P	EP-A-0 532 346 (DU PONT * abstract * * column 1, line 1 - column 3, line 38 - column 3	T) 17 March 1993 Dlumn 2, line 20 *	1-3,11		
				TECHNICAL FIELDS SEARCHED (Int.Cl.5)	
	The present search report has been dr	awn un for all claims			
	Place of search	Date of completion of the search		Examiner	
THE HAGUE		8 October 1996	Sch	Schiwy-Rausch, G	
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure		T : theory or principle E : earlier patent docum after the filing date D : document cited in t L : document cited for	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding		